

AMENDMENTS TO THE CLAIMS:

Please amend the claims to cancel Claims 1 - 21 and add new Claims 22- 42 as follows, this listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 21 (Canceled)

22. (New) A method for controlling heating processes in a coffee machine, which is particularly suitable for preparing coffee on the basis of coffee pads, wherein the coffee machine comprises a continuous flow heater having an adjustable heating power and a pump for conveying water through the continuous flow heater, the method comprising the acts of:

measuring a first temperature in at least one of the area of the continuous flow heater and the water conveyed by the pump; and

influencing the amount of water conveyed by the pump in response to the first temperature.

23. (New) The method according to claim 22, further comprising measuring a second temperature between the continuous flow heater and the brewing chamber and influencing at least one of the amount of water conveyed by the pump and the heating power in response to the second temperature.

24. (New) The method according to claim 22, further comprising measuring a second temperature between the pump and the continuous flow heater and influencing at least one of the amount of water conveyed by the pump and the heating power in response to the second temperature.

25. (New) The method according to claim 22, further comprising measuring the temperature difference between an inlet to the continuous flow heater and an outlet from the continuous flow heater and influencing at least one of the amount of water conveyed by the pump and the heating power in response to the temperature difference.

26. (New) The method according to claim 22, wherein the amount of water conveyed by the pump is influenced by a pulsed operation of the pump.

27. (New) The method according to claim 26, wherein the pump is switched on before the beginning of heating and is operated with a first cycle ratio between switch-on time and switch-off time, the first cycle ratio becoming larger with increasing temperature, and the first cycle ratio being above a predefined temperature threshold.

28. (New) The method according to claim 22, further comprising influencing the heating power in response to the first temperature in the area of the continuous-flow heater in addition to influencing the amount of water conveyed by the pump.

29. (New) An electronic control device for controlling heating process in a coffee machine for preparing coffee using coffee pads, the coffee machine comprising a continuous flow heater having an adjustable heating power and a pump for conveying water along a conveying section through the continuous flow heater and a temperature sensor, wherein the electronic control device comprises means for influencing the amount of water conveyed by the pump in response to the temperature measured by the temperature sensor.

30. (New) The electronic control device according to claim 29, wherein the means for influencing the amount of water conveyed includes clocked operation of the pump.

31. (New) The electronic control device according to claim 29, wherein the means for influencing the amount of water conveyed includes a means for varying the flow resistance.

32. (New) The electronic control device according to claim 31, wherein the means for varying the flow resistance includes a restrictor.

33. (New) The electronic control device according to claim 32, wherein the restrictor includes a slider disposed in the conveying section.

34. (New) The electronic control device according to claim 29, further comprising a means for influencing the heating power in response to the temperature.

35. (New) The electronic control device according to claim 34, wherein the continuous flow heater includes a plurality of heaters and the means for influencing the heating power comprise a controller for switching on different numbers of the plurality of heaters.

36. (New) The electronic control device according to claim 29, wherein the temperature sensor is arranged in a water-guiding section between the continuous flow heater and a brewing chamber.

37. (New) The electronic control device according to claim 36, wherein at least one temperature sensor is arranged on the conveying section and in the water-guiding section.

38. (New) The electronic control device according to claim 36, wherein at least one temperature sensor is disposed directly on a heater of the continuous flow heater.

39. (New) The electronic control device according to claim 29, wherein a second temperature sensor is arranged between the pump and the continuous flow heater and the temperature measured by this temperature sensor is taken into account when influencing the amount of water conveyed by the pump or the heating power.

40. (New) The electronic control device according to claim 29, wherein a second temperature sensor is located upstream of the continuous flow heater in the flow direction of the water.

41. (New) The electronic control device according to claim 29, wherein a second temperature sensor is located downstream of the continuous flow heater in the flow direction of the water.

42. (New) The electronic control device according to claim 40, wherein the electronic control device comprises a differential element for determining the temperature difference between a temperature measured by a temperature sensor located upstream of the continuous flow heater and a temperature measured by a temperature sensor located downstream of the continuous flow heater for influencing the amount of water conveyed by the pump.